

**EXHIBIT  
A**

**In the Matter Of:**

*In Re - Pork Antitrust Litigation*

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*RUSSELL MANGUM*

*July 13, 2022*

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1 DR. RUSSELL MANGUM - HIGHLY CONFIDENTIAL

2 THE VIDEOGRAPHER: We are on  
3 the record on July 13, 2022, at  
4 9:10 a.m. Pacific Time for the  
5 remote deposition of Dr. Russell  
6 Mangum, in the matter of In Re:  
7 Pork Antitrust Litigation.

8 My name is Caylob Suarez and I  
9 am the videographer and document  
10 technician on behalf of Lexitas.

11 All present will be noted on  
12 the stenographic record.

13 Will the court reporter please  
14 swear in the witness.

15  
16 DR. RUSSELL MANGUM, Testifies under penalty  
17 of perjury as follows:

18 THE WITNESS: I do.

19  
20 EXAMINATION

21 BY MR. REISER:

22 Q Good morning, Dr. Mangum. My  
23 name is Craig Reiser. I represent the  
24 Tyson defendants.

25 How are you doing this

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2 So what you just described I  
3 think was work you have done as an expert  
4 witness; is that fair?

5 MR. POUYA: Objection to form.  
6 Misstates the testimony.

7 MR. REISER: Have I misstated  
8 the testimony, Dr. Mangum?

9 THE WITNESS: I think I have  
10 two questions before me. I think I  
11 will answer your -- your -- the  
12 last question you had for me, which  
13 I think was in response to an  
14 objection by Mr. Pouya.

15 I have talked in my last  
16 answers about things that were  
17 beyond just litigation, although my  
18 last answer I did highlight items  
19 and elements of my experience and  
20 training that were related to  
21 litigation.

22 BY MR. REISER:

23 Q Have you ever taken courses  
24 in the production of pork products?

25 A I have not taken a course or

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2 given a course that was limited to the  
3 production of pork, no.

4 Q You anticipated my next  
5 question, so I don't have to go there.

6 Are you hoping to offer an  
7 expert opinion on this case on hog  
8 growing, Dr. Mangum?

9 MR. POUYA: Objection to form.

10 THE WITNESS: I don't  
11 personally have any hopes for  
12 offering opinions. I have rendered  
13 opinions and I understand I might  
14 be asked to testify or take further  
15 steps in litigation process.

16 The opinions as I have  
17 described them are listed in my  
18 report, but they -- they will  
19 relate -- and as you can see in my  
20 report -- they do relate to hog  
21 production, yes.

22 BY MR. REISER:

23 Q Are you an expert in hog  
24 growing, Dr. Mangum?

25 A I believe I am an expert in

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2 the economics of the pork market,  
3 including the way that market operates,  
4 including mechanisms and economic factors  
5 that affect both the downstream and  
6 upstream elements of that pork market,  
7 including the hog market.

8 Q The hog growing market?

9 A That's what I meant. Yes.

10 In other words, if I refer to  
11 a market, it means the sales of something  
12 including how that was procured, whether  
13 it was assembled or manufactured or grown,  
14 et cetera. But this also would apply in  
15 this case to the hog market, and as I talk  
16 about it in my report, the elements of  
17 raising pigs and then selling them  
18 downstream to someone who will be  
19 processing pigs.

20 Q Excluding from your answer  
21 whatever work you have done in connection  
22 with this case, what expertise, if any, do  
23 you have in hog growing?

24 MR. POUYA: Objection. Form.

25 THE WITNESS: The expertise in

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2 the economics of the pork market  
3 and the hog market, which includes  
4 growing the hogs is, I believe,  
5 limited to the work I have done in  
6 this case.

7 BY MR. REISER:

8 Q What about pork packing,  
9 Dr. Mangum, are you an expert on that?

10 A I think I am an expert in the  
11 economics of the pork market, including  
12 the process of packing and what economic  
13 factors relate to packing of pork and  
14 acquiring necessary inputs for packing of  
15 pork, et cetera.

16 Q And excluding from your  
17 answer whatever work you have done in  
18 connection with this case, what expertise  
19 if any, do you have in pork packing?

20 MR. POUYA: Objection to form.

21 Asked and answered.

22 MR. REISER: No, it wasn't  
23 asked nor was it answered.

24 Go ahead, Dr. Mangum.

25 MR. POUYA: I am going to

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2 disagree with that.

3 MR. REISER: You can disagree  
4 all you want but I would like an  
5 answer to that question.

6 THE WITNESS: As I mentioned  
7 earlier when you asked and I  
8 answered, I toured a pork  
9 processing facility outside of the  
10 context of this case; that was part  
11 of my process of analyzing, you  
12 know, what happened, understanding  
13 the processes, the inputs, the  
14 mechanisms and machinery of that  
15 processing.

16 BY MR. REISER:

17 Q Why did you tour a pork  
18 processing facility, Dr. Mangum?

19 A The allegations in that case,  
20 as part of my preparation and forming of  
21 my opinions, I wanted to know about the  
22 machinery and equipment and the process by  
23 which, you know, elements, inputs in this  
24 case hogs, come into a facility and they  
25 are processed, and then obviously leave

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2 A No, I wouldn't be able to  
3 describe that just by that phrase.

4 Q You are not aware of the  
5 Securities Act of 1933?

6 MR. POUYA: Objection to form.

7 THE WITNESS: No. I am aware  
8 of that. I teach about it. I tell  
9 students what the meaning was. I  
10 didn't know what you meant by "the  
11 '33 Act." I didn't know what that  
12 was.

13 BY MR. REISER:

14 Q But it's not something that  
15 you are an expert in, right?

16 A Well, it's undergraduate  
17 students seeking degrees in economics that  
18 learn from me about the existence of the  
19 Securities and Exchange Act. Initially,  
20 as far as I think there was expansions  
21 beyond like one year later about what it  
22 would apply to in secondary markets. So I  
23 talk about that.

24 But if someone said, hey,  
25 great, come to my whole firm, my public



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2 company, and you will be everything I need  
3 to know about that act, I would say I am  
4 not a holistic expert on that.

5 Q Are you an expert in reading  
6 documents and interpreting them,  
7 Dr. Mangum?

8 MR. POUYA: Objection to form.

9 THE WITNESS: I do read  
10 documents and I interpret them,  
11 given my training as an economist  
12 as part of the work I have done and  
13 my education and my training, being  
14 an expert.

15 I wouldn't think -- I can't  
16 recall somebody serving as an  
17 expert and all they do is read and  
18 interpret a document. I don't know  
19 if that's an expert role. But I  
20 think people that form expert  
21 opinions have different ways to  
22 gain information that informs them.  
23 And as part of my analysis, I do  
24 look at evidentiary evidence and  
25 part of it is in documents.

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2 BY MR. REISER:

3 Q Can you describe for me,  
4 Dr. Mangum, the process by which a market  
5 hog is bred for production?

6 A The process by a market hog.  
7 Well, hogs, before they bear young, are  
8 called gilts. They are raised -- I know  
9 there are certain breeds that are very  
10 common for being market hogs, I talk about  
11 that in my report.

12 I know that I talk in the  
13 report about the period of which a gilt  
14 would have to raise to have its child -- I  
15 am saying it again, not child -- piglet  
16 bearing years, about how long it takes to  
17 mature to be in that rearing age.

18 I understand there's the  
19 concept of farrowing, which sometimes is  
20 just giving birth, oftentimes it also  
21 includes the immediate, you know, growth  
22 of piglets before weaning occurs.

23 I am aware of that. I am  
24 aware of the finishing stage after there's  
25 weaning and finishing, et cetera.

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2 that example. Doesn't mean me. I  
3 always get my Starbucks in the  
4 morning, even if my local store  
5 decides to produce less Starbucks,  
6 for example, by closing.

7 BY MR. REISER:

8 Q If an owner or grower of hogs  
9 decided to have less sows, that wouldn't  
10 necessarily mean that there would be fewer  
11 market hogs, right?

12 MR. POUYA: Objection to form.  
13 Misstates the testimony. Lacks  
14 foundation.

15 THE WITNESS: I would need to  
16 know the context. You are asking  
17 about market outcomes by what one  
18 party would do. And so there is no  
19 direct economic answer to your  
20 question without getting more  
21 information.

22 BY MR. REISER:

23 Q I think you testified that  
24 cuts to sows wouldn't necessarily impact  
25 the supply of hogs and you would need to

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2 know more information; is that right?

3 MR. POUYA: Objection to form.

4 Misstates the testimony.

5 THE WITNESS: I am saying

6 there's no single answer

7 economically to what happens to the

8 pork market if all I am given is,

9 well, there's one entity that has

10 sows decides to have less sows.

11 That's --

12 (Simultaneous Crosstalk.)

13 BY MR. REISER:

14 Q Is the pork market the same  
15 as the hog market?

16 A No, not how I have described  
17 it in my report and how I understand it's  
18 described in the industry.

19 Q What is the distinction  
20 between the pork market on the one hand  
21 and the hog market on the other?

22 A Pork is sale of meat which is  
23 processed, butchered from whole animals.  
24 The hog market has to do with selling  
25 whole animals.

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2 Q Do you have an understanding  
3 of who the defendants and the alleged  
4 co-conspirators are in this case are,  
5 Dr. Mangum?

6 A I believe so. I have got  
7 them all listed in my report. But,  
8 generally, yes, I am familiar.

9 Q Do you know how many sows  
10 were owned by the defendants and/or  
11 alleged co-conspirators in this case over  
12 the 2009 to 2018 timeframe?

13 MR. POUYA: Objection to form.

14 THE WITNESS: I do talk about  
15 that in my report and I give the  
16 numbers. I go kind of defendant by  
17 defendant with what I am aware of.  
18 It's different sources and bits of  
19 information I have. I am not sure  
20 if it's exhaustive.

21 What I know, what I have  
22 relied on and understood in my  
23 report, is in my report. I haven't  
24 got that in my short-term memory.

25 BY MR. REISER:

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2 But as I described in my  
3 report, the other way that the  
4 packers are involved is a large and  
5 increasing portion of hogs are sold  
6 through either growing contracts,  
7 where what is sort of being  
8 provided by the farmer is simply  
9 growing services to hogs that are  
10 owned by others, or marketing  
11 contracts, where -- where one of  
12 the packers is under a contract to  
13 buy the hogs, right? -- under terms  
14 and conditions laid out, that are  
15 grown and owned by someone else in  
16 that process.

17 So we have that relationship  
18 to varying degrees as far as the  
19 defendants, the packers; you know,  
20 how much they are involved in  
21 growing hogs, how much they are  
22 involved with buying hogs under a  
23 contract of one sort or another, or  
24 buying them from each other, I talk  
25 about, the defendants buy from each

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2 other, buy and sell to each other,  
3 or going to a negotiated spot  
4 market.

5 BY MR. REISER:

6 Q What does vertical  
7 integration mean, Dr. Mangum?

8 A I did just answer this.  
9 Shall I give the same answer? I don't  
10 know --

11 (Simultaneous Crosstalk.)

12 Q I want --

13 A -- if you didn't understand  
14 it.

15 Q I didn't understand it  
16 because you referenced not only ownership  
17 but also contracts.

18 Is vertical integration --  
19 what, if anything, does vertical  
20 integration have to do with contracts?

21 A Okay. I will try this way.  
22 We sometimes, as economists, refer to  
23 something being upstream versus  
24 downstream. And to some people that just  
25 has its own definitional use. It goes

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2 back to a time when, you know, people  
3 would do something upstream and literally  
4 float things down a stream to someone  
5 else. Like I will cut the tree, I am a  
6 logger, and then the tree floats down the  
7 stream to the person downstream or maybe I  
8 put them on a barge, I deliver my product  
9 downstream, then somebody takes the logs  
10 and prepares them into timber.

11 We have used this idea of  
12 upstream and downstream, and it's used  
13 very generally now in talking about  
14 markets. Vertical integration would mean  
15 that an entity is involved in more than  
16 one level of that upstream downstream  
17 process. So if somebody uses an input and  
18 makes a product, it could be making pork  
19 from using hogs; they might buy a hog and  
20 not be vertically integrated or they might  
21 actually use hogs they grew, so therefore,  
22 part of that entity is upstream, raising  
23 hogs, we call that vertical.

24 So the idea of vertical  
25 integration is being involved in two



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2 stages. Generally people talk about that  
3 meaning immediately adjacent stages, and  
4 it's upstream, downstream, but it need not  
5 necessarily be adjacent.

6 The extra amount of detail  
7 that I talk about in my report for this  
8 case is that aside from simply being -- if  
9 you have a company that is a processor,  
10 vertical integration may mean that they do  
11 own hogs, so they provide themselves as a  
12 packer with hogs, right? -- for  
13 processing, but they hire people to  
14 provide growing services of the hogs they  
15 own.

16 To the outside eye, it might  
17 look like, wait a minute, those are  
18 farmers, they are raising hogs. The  
19 contractual relationship and what is  
20 actually being provided, right? -- is  
21 a growing service to a hog that's owned by  
22 a packer, you wouldn't see from the  
23 outside, but I think that could be  
24 included in a distribution definition of  
25 vertically integrated.

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2 As I talk about in my report,  
3 there are also instances where a packer  
4 will contractually arrange to buy a hog,  
5 but they don't own it, although it's being  
6 raised and grown and finished. But they  
7 have an agreement by which they basically  
8 contracted to receive that hog under the  
9 terms of the agreement. That is a type  
10 of -- I call indirect or soft vertical  
11 integration.

12 And as I cite in my expert  
13 report, economic literature has shown that  
14 that process basically be a proxy for the  
15 same thing as vertical integration,  
16 depending on the contract terms.

17 So anyway, hopefully that  
18 gives you a definition of this vertical  
19 integration incorporating the question of,  
20 well, does that mean ownership or not.

21 Q Hypothetically, if hog packer  
22 owned 100 percent of the hogs that it  
23 packed, is it your opinion that that hog  
24 packer is as vertically integrated as a  
25 hog packer who contracts for 100 percent

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2 of the hogs that it packs?

3 MR. POUYA: Objection to form.

4 Vague. Incomplete hypothetical.

5 THE WITNESS: Yeah, I think it  
6 would depend on -- well, someone  
7 could be talking about, are they  
8 legally vertically integrated  
9 versus are they economically. The  
10 answer could be different.

11 I think you could have a  
12 situation where somebody contracts  
13 for something, but economically,  
14 there they are, you know, for all  
15 intents and purposes, in effect,  
16 vertically integrated, although  
17 they technically don't own it. So  
18 they are not there.

19 So I think there could be a  
20 different answer if it's a legal  
21 question versus an economic  
22 question. But it also would relate  
23 to the terms of the contract,  
24 right. I mean, I think you said  
25 there's a contract to buy it. But

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2 it could depend on what the terms  
3 are.

4 BY MR. REISER:

5 Q Under what circumstances can  
6 a contract effectively amount to the same  
7 thing as ownership?

8 MR. POUYA: Objection to form.  
9 Vague.

10 THE WITNESS: Well, oftentimes  
11 a contract -- I will speak as an  
12 economist, not as an attorney --  
13 but a contract might try to attempt  
14 to say, one person ahead of time  
15 will become the owner of something  
16 to lock up that ownership, but it's  
17 not until a point in time. And  
18 what guides it is this contract.  
19 Right? So they might be set up to  
20 be that way.

21 And if there are clauses that  
22 ensure what is going to happen, if  
23 there is a breach what that might  
24 mean, how much oversight the person  
25 contracting to buy gets. I

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2 describe in my report what I have  
3 seen in this case, they can be very  
4 detailed as far as inspections and  
5 things in the processes by which  
6 how they are grown and medication  
7 options that are used, things like  
8 that they can be very detailed.

9 There can be clauses on the  
10 contrary, where people have the  
11 ability to walk away without  
12 recourse, with just notice. And so  
13 it gets in the idea of the terms  
14 about how many options still remain  
15 for either party in the contract.

16 BY MR. REISER:

17 Q So the answer to my question  
18 about when a contract can effectively  
19 amount to the same thing as ownership  
20 depends on what the contract says; is that  
21 fair?

22 A I think so. Contracts don't  
23 say anything. And I know you probably  
24 just meant the contents of the contract.  
25 But it also -- it's more than that,

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2 because as I describe in my report, I  
3 point to some evidence that commentators  
4 in the industry have described the case  
5 that there's so much of this contracting  
6 and so few relatively to the hog  
7 producers, you know, much fewer number of  
8 buyers for processing than the sellers, as  
9 I state in my report, have this  
10 take-it-or-leave-it option.

11 Well, I bring that up because  
12 sometimes you may have a contract and you  
13 might be wondering what you are going to  
14 do. It's not only what is in the  
15 contract, it could be, well, what options  
16 would I have. That could be just as  
17 important of an element.

18 So I would agree that it  
19 would include the contents of the  
20 contract, but it should also include the  
21 context of options the parties to have  
22 outside the contract.

23 Q Do you have an understanding  
24 of the number of hogs that Tyson packs  
25 that come from its own herd?

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2 MR. POUYA: Objection. Form.  
3 Vague.

4 THE WITNESS: I talk about --  
5 this very question about vertical  
6 integration, and, you know, who  
7 grows hogs for themselves. I think  
8 I talk about who grows them at all  
9 and they may sell to other entities  
10 and still may be buying from other  
11 entities.

12 I remember talking about Tyson  
13 and if I recall, they are one of  
14 the defendants that don't have a  
15 large amount of growing, but would  
16 I want to go back and look at the  
17 report to come up with any number.  
18 I don't have any numbers I could  
19 tell you as far as a hog count or a  
20 portion of their hogs.

21 But if I am correct in  
22 remembering my report, I think  
23 Tyson's was one of the entities --  
24 was not one of the larger -- one of  
25 the defendants, the packers who had

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2 there's other reasons why hogs  
3 could be grown, if they are going  
4 for the hog market -- the hog  
5 market, kind of that answers the  
6 question.

7 In other words, they grow them  
8 because they believe that their  
9 efforts of, you know, feed,  
10 location, facilities, time, will  
11 lead to having something they can  
12 sell and receive compensation for.  
13 They grow them to sell them to  
14 somebody who wants to buy a hog.

15 BY MR. REISER:

16 Q You agree, Dr. Mangum, that  
17 there are independent hog growers that are  
18 not affiliated with the defendants and  
19 alleged co-conspirators in this case,  
20 right?

21 A Affiliated is a pretty vague  
22 term. One might say that if I sell -- I  
23 am affiliated with Starbucks as a  
24 customer.

25 So do you mean that are not



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2 affiliated, meaning they have no business  
3 relationship or interaction with them  
4 ever?

5 Q You agree, Dr. Mangum, that  
6 there are independent hog growers who sell  
7 hogs to the defendants that the defendants  
8 and alleged co-conspirators this case do  
9 not own, right?

10 A Oh, oh, yes. I talk about  
11 that in my report.

12 In other words, I could only  
13 say no to that if I thought that the  
14 packer market was 100 percent vertically  
15 integrated, which clearly it's not, as I  
16 talk about in my report. There are  
17 independent growers.

18 Q And many of the defendants  
19 and alleged co-conspirators this case are  
20 not anywhere near a hundred percent  
21 vertically integrated, right?

22 MR. POUYA: Objection to form.  
23 Vague. Lacks foundation.

24 THE WITNESS: I don't believe  
25 that the defendants which are

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2 packers and sell things in the pork  
3 market, I don't think any of them  
4 are close to a hundred percent  
5 vertically integrated in the formal  
6 sense they own and sell just for  
7 themselves. No, I don't think  
8 there's any one close to  
9 100 percent.

10 BY MR. REISER:

11 Q Some of them are close to a  
12 hundred percent in terms of buying hogs  
13 from somebody other than their company,  
14 right?

15 A I think so. But it gets  
16 back, you know, to the questions you were  
17 asking me about percentages for certain  
18 entities, and if I would be surprised that  
19 number is for Hormel and Tyson, and I just  
20 don't have those numbers.

21 But I do know that, as I  
22 describe in my report, there are packers  
23 that are much more heavily vertically  
24 integrated and some that are not very  
25 vertically integrated at all -- formally

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2 by the idea of, you know, owning, raising  
3 for themselves, and then basically  
4 internally supplying the hogs for  
5 themselves when they, you know, make  
6 things to sell in the pork market.

7 Q Do the independent hog  
8 growers who sell hogs to the defendants  
9 that they otherwise don't own, sell to  
10 just one defendant?

11 MR. POUYA: Objection to form.  
12 Vague. Foundation. Compound.

13 THE WITNESS: There can be  
14 practices where you might say for a  
15 period of time it could be that a  
16 relationship -- might look like,  
17 this farmer, this grower, really  
18 mainly works with that defendant,  
19 but there is a lot of swapping. I  
20 would not generally say that we get  
21 these direct match ups that kind of  
22 retain for long time. But it  
23 depends on the practices.

24 As I mentioned in my report,  
25 you have got location issues about

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2 depending on where a grower is and  
3 there are shipping costs involved  
4 and who are the possible purchasers  
5 of the hogs, it's not as if they  
6 have equal access economically,  
7 even, to be selling to everyone.

8 But I do understand that it's  
9 not uncommon for farmers to have  
10 more than one packer that they  
11 would sell to.

12 BY MR. REISER:

13 Q What do you mean by  
14 "swapping"?

15 You just referred to swapping  
16 in your answer. Can you elaborate on what  
17 that means?

18 A I don't remember where I used  
19 the word swapping, but I think I just  
20 meant that there might be a practice where  
21 some farmer sells to so and so and they  
22 have a practice for a while, and then they  
23 make a change.

24 And then it might be that  
25 they add someone else, retaining the

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2 price of pork, right?

3 MR. POUYA: Objection to form.

4 THE WITNESS: That's one

5 element but not a main element. I

6 wouldn't say that is the principal

7 element. I mean, I have got a

8 substantial amount of my work and

9 my discussions -- and the opinions

10 in this case that relates to the

11 industry and which factors would be

12 conducive for conclusion.

13 I have got analysis of -- I

14 look to see whether or not across

15 defendants, across geographies,

16 across different customers, if

17 there would be common affect of

18 what is being alleged.

19 I do have a regression. I put

20 forward a methodology that I have

21 shown can be used to estimate a

22 price effects. I have also looked

23 beyond just the price effects, I

24 have looked to see if I believe

25 those effects would be -- would be

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2 felt by all or nearly all

3 purchasers.

4 So those are the main elements

5 that I can cite now for memory from

6 my report. One of them is a model.

7 I do several different models I

8 mention in my report about

9 estimating price effects.

10 But this is not -- the main

11 thing I am doing is damages

12 involving price. Right? I see

13 that as one element, but really not

14 even a majority of what I do in my

15 report.

16 BY MR. REISER:

17 Q What are you doing in

18 paragraph 73 of your report?

19 A Paragraph 73 is talking

20 generally about the domestic supply of

21 pork, right? And, you know, factors that

22 could affect them. The paragraph speaks

23 for itself.

24 I wouldn't want to say, let

25 me subtract all the words I have in my

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2 sentence and give you today a replacement  
3 phrase. I will let the paragraph speak  
4 for itself.

5 Q Do you think your damages  
6 analysis has to be tethered in any way to  
7 what the theory of liability is?

8 MR. POUYA: Objection. Form.

9 THE WITNESS: My damage  
10 analysis is tied to the conspiracy  
11 as I understand it. I have  
12 developed it through a benchmark  
13 model such that what I am in  
14 looking at the price effects. It  
15 is built such that it separates  
16 non-conspiratorial factors from  
17 conspiratorial. So in that sense,  
18 that's what mine does.

19 That was the aim to build  
20 something that would look at nested  
21 in exactly what is the allegation,  
22 right? -- and to say, okay, if  
23 that's -- if that's what liability  
24 will be found for, let me build a  
25 model that can be helpful to

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2 What sections would you include in there,  
3 if you are going to be talking about --  
4 you know, expertise is knowing -- you  
5 know, there probably should be a section  
6 on export, there should be section on  
7 procurement processes.

8 So I bring kind of my  
9 organizational expertise above and beyond  
10 what I actually find in those sections  
11 that I thought was relevant to cover.

12 Q Is it fair to say that if  
13 someone read the materials you're citing,  
14 they could draft something summarizing  
15 this type of information on pages 8 to 50  
16 of your report which has been marked  
17 Mangum Exhibit 1?

18 MR. POUYA: Objection. Vague.  
19 Compound. Foundation.

20 THE WITNESS: Yes. If I  
21 understood your question, I think  
22 you simply asked could on someone  
23 read it and summarize it in  
24 writing. I think so, yeah.

25 BY MR. REISER:



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2 Q I was referring to the  
3 materials that you are citing in your  
4 report.

5 Can someone read those and do  
6 an analysis of the kind you have done on  
7 pages 8 to 50 of your report which has  
8 been marked Mangum Exhibit 1?

9 MR. POUYA: Objection. Vague.  
10 Foundation. Speculation.

11 THE WITNESS: Well, I mean, I  
12 think it would depend -- it would  
13 depend on who that someone is. I  
14 don't believe that I am the only  
15 one that could have done this. But  
16 I think someone else with an  
17 understanding of what is relevant  
18 to touch on and what information  
19 should be described to give a  
20 context for this case. I don't  
21 think I have got a unique position  
22 of the ability to do this.

23 BY MR. REISER:

24 Q Let's look at paragraph 39.

25 Why don't you give that a

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2 read and we can pull it up on the screen  
3 in the meantime, and tell me when you are  
4 done.

5 A Okay. (Reviewing.)

6 Yep. I am finished with  
7 paragraph 39.

8 Q In the last sentence you say  
9 here that "Litter generally increased over  
10 the past several decades."

11 Do you see that?

12 A I do.

13 Q Do you know why?

14 A I mean, I cited a report  
15 which gives more information. But I think  
16 efficiency in the process of the general  
17 idea of raising pigs, part of it has to do  
18 with some of the medical, right? --  
19 virus -- et cetera, those type of things,  
20 and vaccines.

21 Other things has to do with  
22 improvements over time with feed mixes,  
23 vitamins. Essentially an issue of kind of  
24 health during the process, treatment of  
25 the animals as they grow. But I think

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2 contractual terms.

3 Q But you are not opining that  
4 a contract stating what a packer will buy  
5 and how it will buy it is the same as  
6 owning the hog.

7 You're just saying it  
8 approximates owning the hog, right?

9 MR. POUYA: Objection.  
10 Misstates the testimony.  
11 Foundation.

12 THE WITNESS: Well, I don't  
13 mean to give any assessment that is  
14 a legal assessment or opinion. So,  
15 owning to some extent is a legal  
16 thing.

17 Economically, I do believe  
18 it's feasible with contracts. For  
19 example, a contract that simply  
20 says, you know, I get to buy from  
21 you something in a year, right? Or  
22 maybe starting in a month for a  
23 year with nothing else. That's  
24 very different than one that says,  
25 I get to buy this from you but

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2 everything you grow, you sell to  
3 me. If you grow more, I get to buy  
4 it, I may not have to pay the same  
5 high price. And by the way, you  
6 have to do all these -- I mean,  
7 depending -- these are some of the  
8 terms I have highlighted as being  
9 relevant for this case.

10 Those get really, really close  
11 to taking much -- almost all of the  
12 flexibility, if you will, away from  
13 the grower because they are  
14 basically having to act just as  
15 they are being told to the  
16 contract.

17 And I get there's value to the  
18 contracts. Some growers apparently  
19 are willing, given some of the rift  
20 sharing involved and price terms  
21 and formulas they lock in.

22 But the part of the literature  
23 that I am citing, what I think is  
24 relevant for the control is with  
25 the large amounts of terms I have

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2 seen that direct what growers have  
3 to do in this case, it's much more  
4 closer to vertical integration,  
5 approximating the same. Compared  
6 to just, well, I am going to send  
7 you hogs and that is my only  
8 limitation, the number of hogs.

9 BY MR. REISER:

10 Q And the burdens in  
11 particular, those are identified in  
12 paragraph 111 of your report that we are  
13 looking at right now, right?

14 MR. POUYA: Objection. Asked  
15 and answered.

16 THE WITNESS: This is a place  
17 that I talk about those burdens. I  
18 don't know if it is to the  
19 exclusion of elsewhere.

20 But, yeah, this is, as I  
21 remember, the place in my report  
22 that I talk about those examples.  
23 I say "for example," as opposed to  
24 exhaustively. I do list those and  
25 also give the contracts listed

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2 there I am that I am referring to.

3 BY MR. REISER:

4 Q Did you do any analysis to  
5 separate packers on the one hand that buy  
6 most or all of their hogs from packers on  
7 the other hand that do not?

8 A Yes. I think we talked  
9 earlier today, we went through a couple of  
10 paragraphs. And I had one paragraph that  
11 I was talking about people like Tyson and  
12 people like Hormel. Right?

13 And so I talked about them  
14 separately. And then I moved to the next  
15 paragraph. And you think said isn't this  
16 the paragraph where you're now talking  
17 about people who actually were -- and to a  
18 larger degree vertically integrated. So I  
19 did talk about those separately and list  
20 them separately.

21 Q Why did you review the  
22 contracts that are listed in footnote 235  
23 in particular, Dr. Mangum?

24 A I think what I was looking  
25 for is I had an idea of the exemplar type

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2 of terms that I believe were things that  
3 were restrictive on the growers, right? --  
4 to meet the requirements of the buyers.

5 And once I remember from the  
6 review of documents that me and my staff  
7 found, I thought, okay, well, if we are  
8 going to list those terms that we came up,  
9 the examples of those type of terms,  
10 let's -- I said let's just make sure we  
11 actually then cite two documents,  
12 contracts, that have those terms we are  
13 talking about.

14 So that was the goal. It  
15 started with the list, and then we said  
16 let's find contracts that mention these  
17 terms.

18 Q Do you have any understanding  
19 as to whether growers have any way to know  
20 what contractual terms are typical in  
21 contracts with packers?

22 MR. POUYA: Objection.

23 Foundation. Speculation.

24 THE WITNESS: I do  
25 understand -- as I talk about in my

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2 report, I do understand that  
3 growers typically service multiple  
4 farmers. So they were their own  
5 dealings that I am aware of, will  
6 see the different types of  
7 contracts that exist from different  
8 types of packers.

9 I also note, as I highlighted  
10 in the report, there are industry  
11 publications, there are industry  
12 groups. People share information  
13 over time. But that I am surmising  
14 what I know generally about  
15 agricultural type of markets and  
16 participants there.

17 But I do know they operate  
18 themselves with multiple types of  
19 buyers. Maybe not the full range  
20 at the same time, but over time  
21 particularly.

22 BY MR. REISER:

23 Q If there was a way for you to  
24 analyze all of the types of contractual  
25 terms that are in contracts between